

Figure 11. This is a view looking upstream of Arroyo Seco where it is confined in narrow canyon (see map for photographic viewpoint). Resistant basement bedrock (*MtPeb*) prevents a broad alluvial floodplain from forming. Downstream, less resistant Tertiary marine sediments are eroded by the Arroyo Seco and the sequence of strath terraces is preserved.

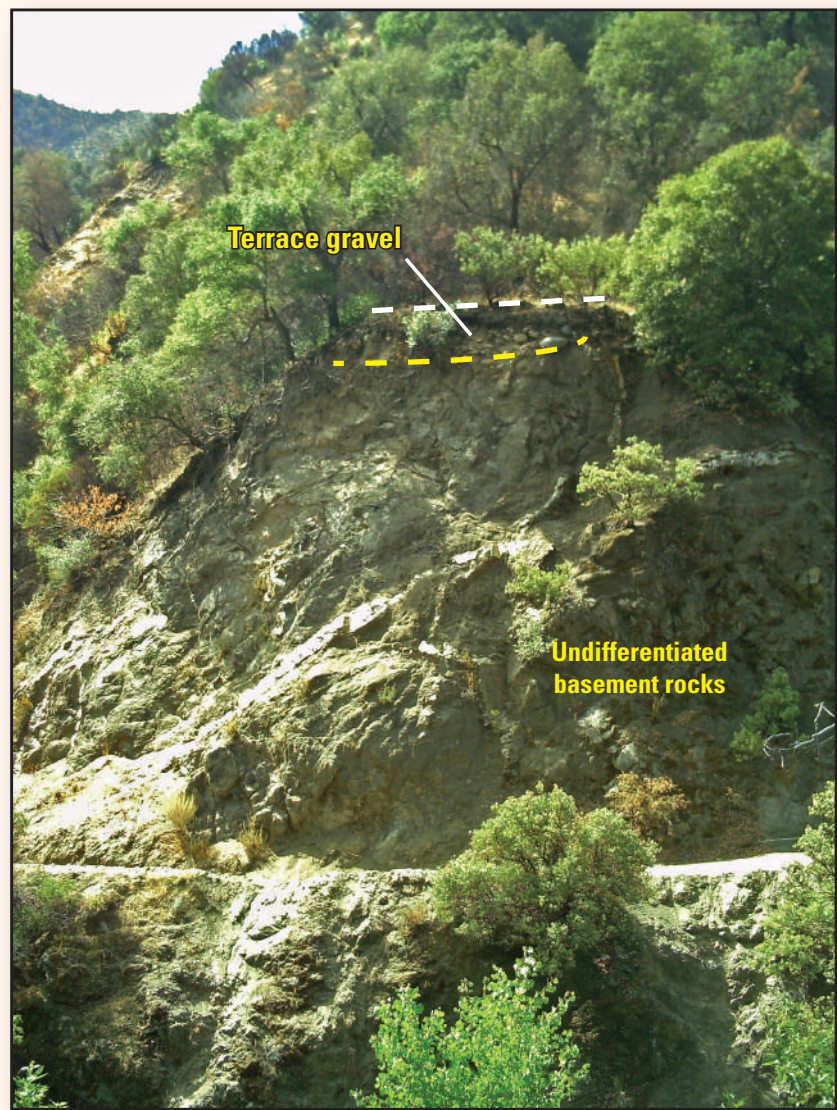


Figure 12. Small terrace treads are preserved in the narrow Arroyo Seco canyon (see map for location of photographic viewpoint). These strath terraces record where the Arroyo Seco floodplain once eroded the undifferentiated basement rocks (M₀P₀B). White dashes locate the terrace surface and yellow dashes locate the top of bedrock. Gravels are about 1 meter thick.

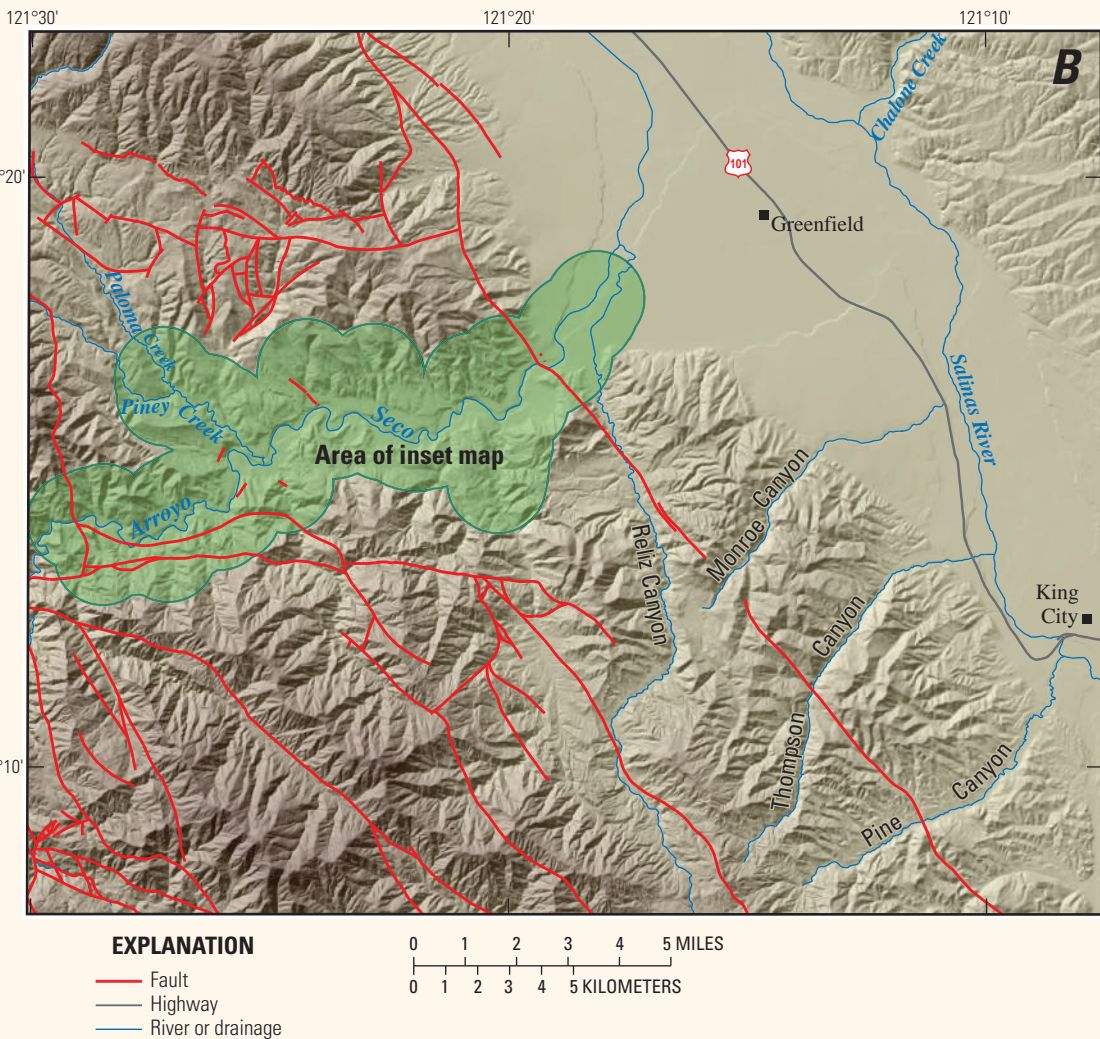
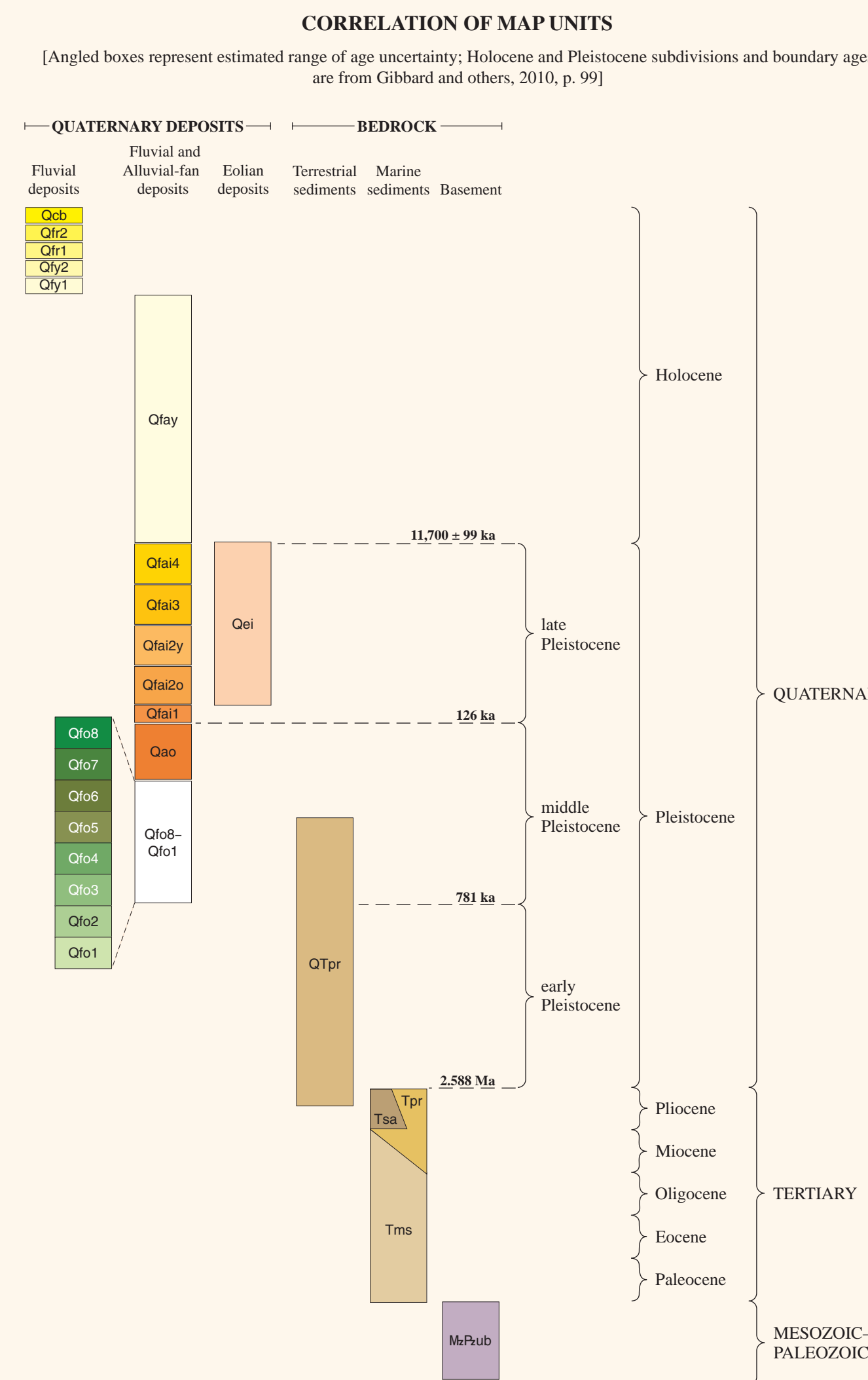
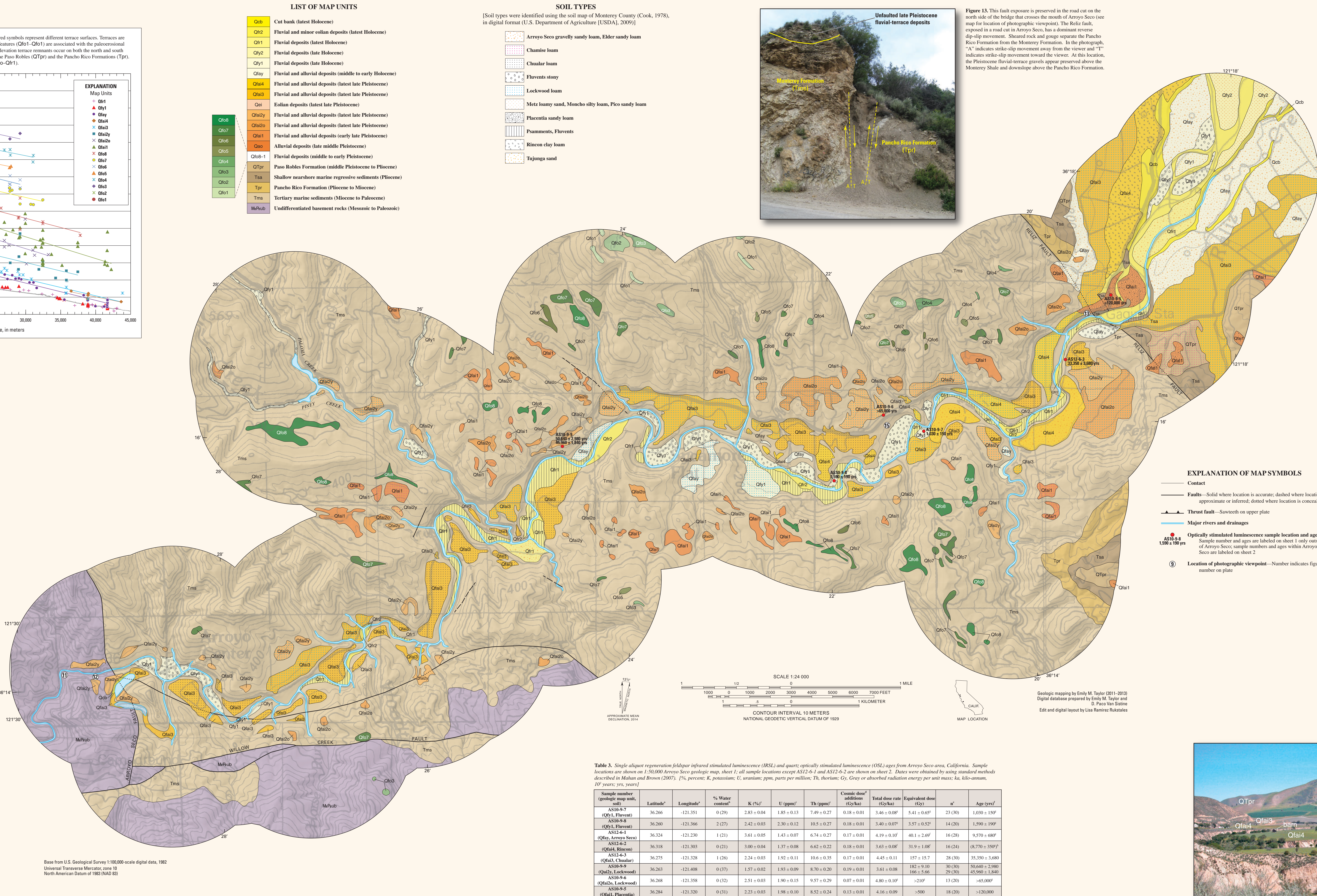


Figure 14. Location of inset map showing Arroyo Seco and the Quaternary terraces.

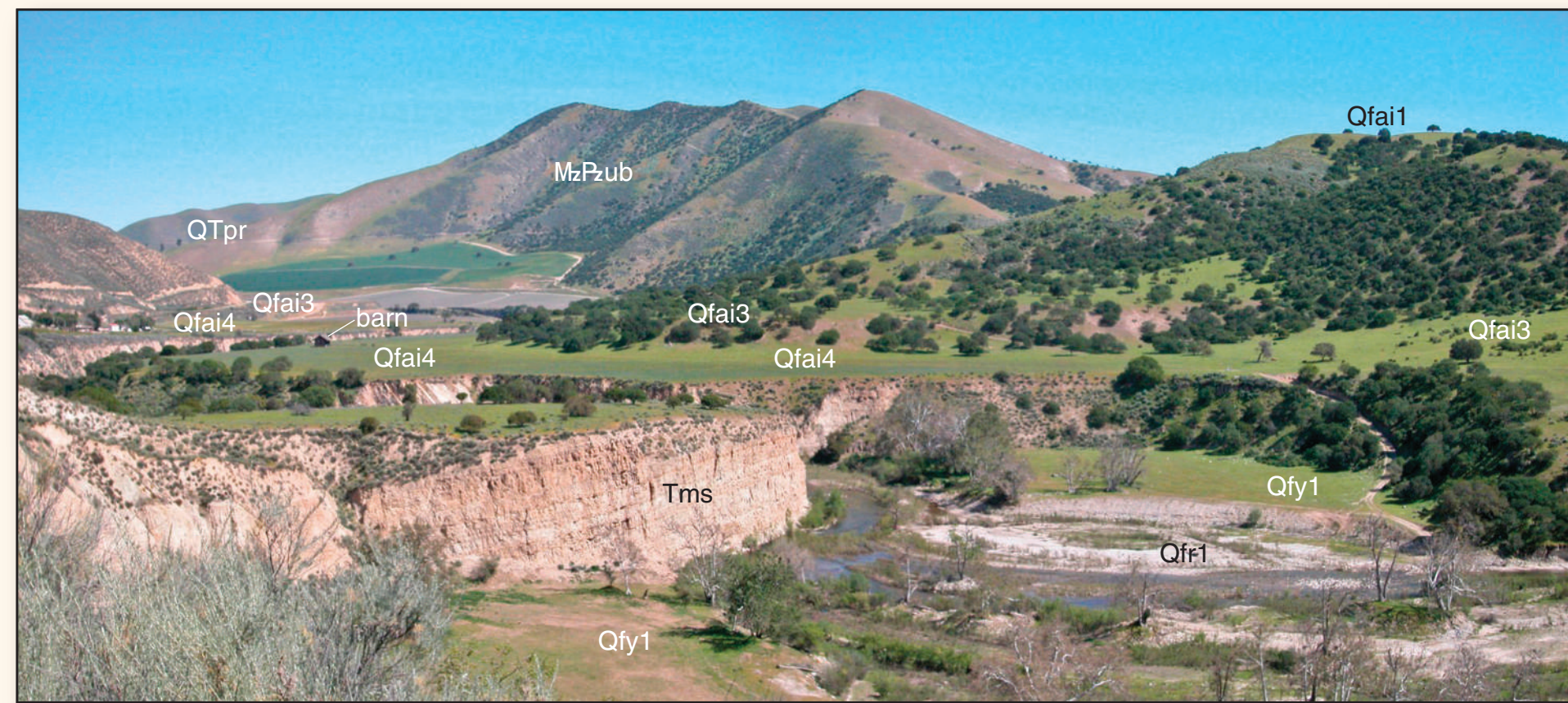


Figure 15. Photograph looking downstream at a well-preserved sequence of late Pleistocene and inset Holocene strath terraces (see map for location of photographic viewpoint). Where Arroyo Seco has eroded Tertiary marine sediments, primarily Monterey shale, a broad valley has formed. Each terrace records a floodplain eroded into the bedrock and is capped by rounded gravel derived from the more resistant basement rocks (*Mp2b*) upstream. Photograph by Tony Garcia, California Polytechnic University, San Luis Obispo, 2012.

Sample number (grain type, location)	Latitude ^a	Longitude ^a	% Water content ^b	K (% ^c)	U (ppm) ^d	Th (ppm) ^d	Gy (Gy) ^e	Total dose error (Gy) ^f	Equivalent dose ^g	n ^h	Age (yr) ⁱ
QSL2-1 (Qtz, Fluvial)	36.266	-121.351	0 (29)	2.83 ± 0.04	1.85 ± 0.13	7.49 ± 0.27	0.18 ± 0.01	3.46 ± 0.08	5.41 ± 0.68 ^j	23	(10.0) ± 150 ^k
AS10-88 (Qtz, Fluvial)	36.260	-121.366	(27)	2.42 ± 0.03	2.30 ± 0.12	10.5 ± 0.27	0.18 ± 0.01	3.40 ± 0.07	3.57 ± 0.52 ^j	14 (20)	1590 ± 190 ^k
AS12-61 (Qtz, Fluvial)	36.324	-121.230	(21)	3.61 ± 0.05	1.43 ± 0.07	6.74 ± 0.27	0.17 ± 0.01	4.19 ± 0.41	4.41 ± 1.69 ^j	(68)	9370 ± 600 ^k
AS12-42 (Qtz, Fluvial)	36.318	-121.303	(21)	3.00 ± 0.04	1.37 ± 0.08	6.62 ± 0.32	0.18 ± 0.01	3.63 ± 0.08	31.9 ± 1.08 ^j	16 (24)	8730 ± 350 ^k
AS12-43 (Qtz, Channel)	36.273	-121.328	1 (26)	2.24 ± 0.03	1.92 ± 0.11	10.6 ± 0.35	0.17 ± 0.01	4.45 ± 0.11	17.2 ± 1.57	28 (30)	3550 ± 340 ^k
AS12-49 (Qtz, Lockwood)	36.265	-121.408	(37)	1.57 ± 0.02	1.95 ± 0.09	8.70 ± 0.20	0.19 ± 0.01	3.61 ± 0.08	162 ± 5.0	29 (30)	4560 ± 1240 ^k
AS10-94 (Qtz, Lockwood)	36.268	-121.356	(32)	2.51 ± 0.03	1.90 ± 0.15	9.57 ± 0.29	0.17 ± 0.01	4.80 ± 0.10	-210 ^j	13 (20)	<60,000 ^k
AS10-85 (Qtz, Lockwood)	36.284	-121.213	(31)	2.23 ± 0.03	1.98 ± 0.10	8.52 ± 0.24	0.13 ± 0.01	4.16 ± 0.09	-500	18 (20)	<120,000 ^k

^a Predicted coordinates are in UTM Zone 18, NAD 83

^b Tiedgird moisture, with figures in parentheses indicating the complete sample saturation %; Ages calculated using approximately 50% of saturation values

^c Analyses obtained from laboratory gamma spectrometry on a bulk sample (high-resolution Ge detector)

^d Cosmic dose and attenuation with depth were calculated using the methods of Prescott and Hutton (1994)

^e Number of replicated equivalent circuit (EC) estimates used to calculate the mean. Figures in parentheses indicate total number of measurements made including failed trials with usable data

^f Data run and age for first gamma-glass (AG-100) are presented in following column

^g Linear = exponential (folded over) for all ages, errors on one sigma. Folded over indicates age of 5–10%. Fold over indicate a value of 1% (1σ/decade). For the samples analyzed in this paper (AS10-5 and AS10-6) this value has not been added

^h Does run and age for first three 20–180 quart sample. Linear = exponential (folded over) on equivalent dose, errors on one sigma, single aliquot regeneration (SAR). Unresolvable

Quaternary Geologic Map of the North-Central Part of the Salinas River Valley and Arroyo Seco, Monterey County, California
Inset map of Arroyo Seco and Quaternary Terraces

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